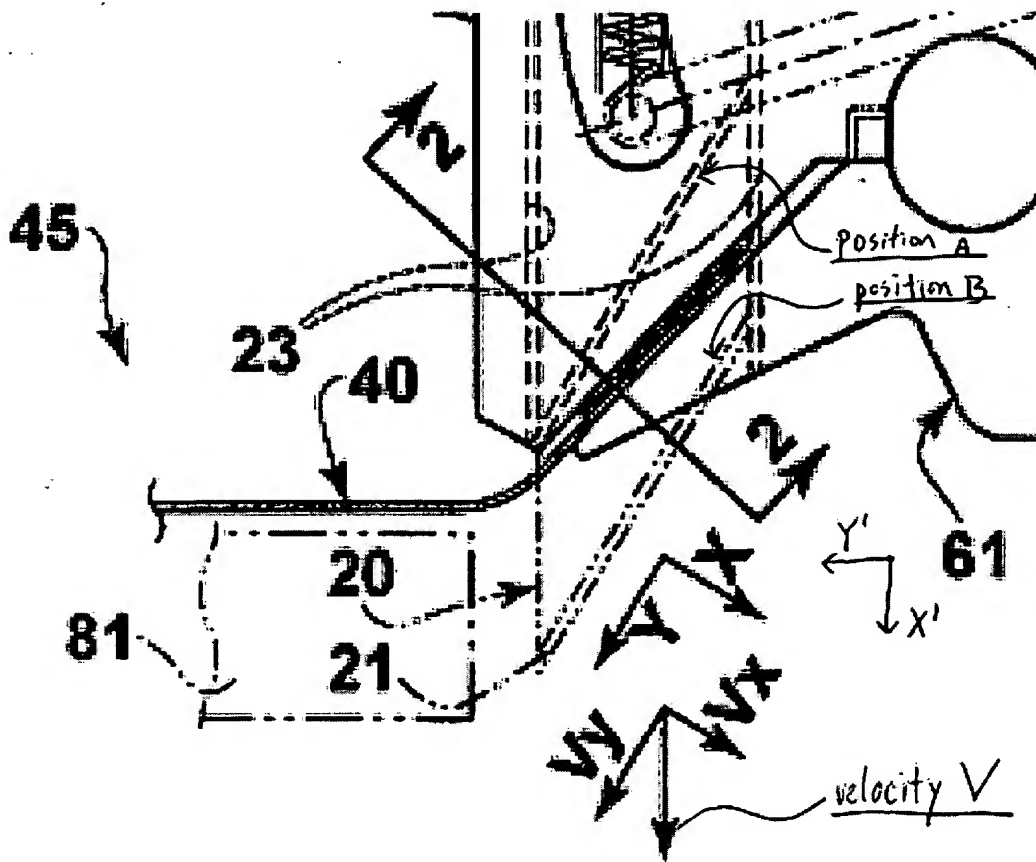


REMARKS

Claims 1-14 are all the claims pending in the application. By this Amendment, new claims 13 and 14 are added.

As a preliminary matter, the Examiner objects to the specification under 37 C.F.R. § 1.71 as purportedly not disclosing how the cutting means cuts the napped cloth in both Vy and Vx directions. Furthermore, the Examiner rejects claims 2, 3, 5, 6, 8, 9, 11, and 12 under 35 U.S.C. § 112, first paragraph, as purportedly containing subject matter which is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicants submit that the specification fully discloses how the cutting means cuts the napped cloth as disclosed and the claims contain subject matter which is fully described in the specification.

To clarify the invention, Applicants submit a marked up Fig. 1B of the Application below, with non-substantive modifications for simplicity of presentation:



In the invention, the cutter 20 moves from position A to position B. Although the cutter 20 moves in one direction at velocity V , the velocity V can be resolved into two components in the X-Y reference coordinate axes shown above. The two components are V_y in the Y-direction and V_x in the X-direction. See Specification, page 10, lines 10-17 and Fig. 1B. Accordingly, there is a movement of the cutter along the Y-direction with a corresponding cutting action along the same direction. Applicants submit that if the X'-Y' reference coordinate axes are used, then the cutter 20 would not have $V_{y'}$ in the Y'-direction but would merely have $V_{x'}$ in the X'-direction. However, Fig. 1B shows that V_y and V_x are determined with respect to the X-Y reference coordinate axes, and thus, the velocity V can be resolved into two components.

Moreover, the velocities V_y and V_x allow for the calculation of a ratio between the two velocities. Therefore, Applicants request the Examiner to withdraw the objection to the specification under 37 C.F.R. § 1.71 and the rejection of claims 2, 3, 5, 6, 8, 9, 11, and 12 under 35 U.S.C. § 112, first paragraph.

Turning to the prior art rejections, claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Warthen et al. (U.S. Patent No. 5,979,278; hereinafter “Warthen”). Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Brocklehurst (U.S. Patent No.: 5,018,461; hereinafter “Brocklehurst”). Claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by Schneider et al. (U.S. Patent No. 4,793,033; hereinafter “Schneider”). Claims 3 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Warthen. Claims 7-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Warthen and Official Notice. Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Schneider. Claims 7-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schneider and Official Notice. Applicants add the new claims listed above to claim more fully the invention and submit the following arguments in traversal of the prior art rejections.

Applicants’ invention relates to a cutting machine for cutting napped cloth, in an embodiment. In the embodiment, there is a fastening means which sandwich and fasten the napped cloth from both sides during the cutting of the napped cloth. There is a cutting means to cut the napped cloth by advancing the cutter through the cloth from a side having the napped surface. In the embodiment, the blade of the cutter moves in a direction in which the blade extends.

Rejection of Claims 1, 2, 4 and 5 under § 102(b) by Warthen

Warthen relates to a method for cutting piled fabric. As a cutting blade moves downward toward the piled fabric, the cutting blade is also moved sideways in a direction perpendicular to the length of the blade. The combination of the downward movement and the sideways movement of the cutting blade flattens some of the piling elements toward the base of the fabric. As the fabric is cut, the flattened pile elements are cut as well. The cut pile elements are on one side of the cut, while the pile elements on the other side of the cut remain substantially unaltered.

Applicants respectfully submit that claim 1 is believed to be patentable because Warthen fails to disclose a cutting machine for *napped cloth* to cut a napped cloth having a single napped surface, comprising: a cutting means *for cutting the napped cloth* by advancing a cutter through the napped surface. In Warthen, there is no mention of cutting napped cloth. Applicants submit that U.S. Patent Nos. 5,539,964 and 5,860,613 (both assigned to Milliken Research Corp.) provide a description of a general napped cloth which is not mentioned in Warthen. By using the Applicants' invention, the problems generally associated with cutting napped cloth using conventional cutters, do not exist.

For at least the above reason, claim 1 is believed to be patentable.

Claims 2, 4, and 5, which ultimately depend from claim 1, are believed to be patentable for at least the reasons submitted for claim 1.

In addition, claim 2 is believed to be patentable because each and every element of the claim is not disclosed or suggested by Warthen. For example, claim 2 recites, *inter alia*:

a cutting means for cutting the napped cloth by advancing a cutter through the napped surface, wherein the cutting means cuts the napped cloth by moving the cutter so that both V_y , *a component of velocity in a direction wherein a blade of the cutter extends*, and V_x , *a component of velocity in a direction orthogonal to the direction wherein the blade of the cutter extends* *become larger than 0*.

Fig. 1 of Warthen shows a cross section of the cutting blade 36 and the specification discloses that the cutting blade 36 preferably extends in a lengthwise direction substantially transverse to the side view shown. Col. 4, lines 36-39 (lengthwise direction being normal to the plane in which the apparatus 30 is drawn). While the cutting blade 36 is disclosed as moving downwards and sideways, there is nothing to indicate that the cutting blade 36 would have any movement in the lengthwise direction, i.e., in a direction wherein the cutting blade 36 extends. In other words, Warthen discloses that the cutting blade 36 drops downward in a vertical direction and moves sideways in the horizontal direction but fails to disclose that the cutting blade 35 moves along its length perpendicular to the vertical and the horizontal directions.

For at least the above reasons, claim 2 is believed to be patentable.

Rejection of Claim 1 under § 102(b) by Brocklehurst

Brocklehurst discloses a method and apparatus for finishing the edges of a flat, sheet-like work product. The reference discloses sewing the edges of the sheet material by forming an over edge stitch around the perimeter edge of the product.

Applicants submit that claim 1 is believed to be patentable for reasons similar to those submitted for the rejection of claim 1 over Warthen, i.e., Brocklehurst fails to disclose a cutting machine for *napped cloth* to cut a napped cloth having a single napped surface, comprising: a cutting means *for cutting the napped cloth* by advancing a cutter through the napped surface.

Rejection of Claims 1 and 2 under § 102(b) by Schneider

Schneider discloses a method and an apparatus for cutting a sculptured pattern in a carpet pile. The apparatus has a carpet clipping head carried by a carriage means that can move the clipping head.

Applicants submit that claim 1 is believed to be patentable for reasons similar to those submitted for the rejection of claim 1 over Warthen, i.e., Schneider fails to disclose a cutting machine for *napped cloth* to cut a napped cloth having a single napped surface, comprising: a cutting means *for cutting the napped cloth* by advancing a cutter through the napped surface. Rather, Schneider merely teaches an apparatus “which is capable of sculpting, i.e., carving or cutting, *a decorative pattern in the pile* of a carpet 12 that is supported by a support surface 14.” Col. 3, lines 23-27. Unlike the present invention, there is nothing in Schneider which discloses or suggests that the carpet 12 itself is cut.

Thus, claim 1 is believed to be patentable for at least the above reasons.

Claim 2 is believed to be patentable for at least the reasons submitted for claim 1.

Rejection of Claims 3 and 6 under § 103(a) over Warthen

Rejection of Claims 7-12 under § 103(a) over Warthen and Official Notice

Applicants respectfully submit that claims 3 and 6-12, which ultimately depend from claim 1, are believed to be patentable for at least the reasons submitted for claim 1 with respect to Warthen and because the Examiner has not shown how the velocity component V_y is obvious to one skilled in the art.

Moreover, claims 3 and 6 are believed to be patentable because Warthen cannot possibly disclose or even suggest the claimed ratio of V_x/V_y because the reference fails to teach or suggest V_y .

Rejection of Claim 3 under § 103(a) over Schneider

Applicants submit that claim 3 is believed to be patentable because the Examiner has not established a *prima facie* case of obviousness. In the Office Action, the Examiner states that “[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to set the ratio [sic] V_x/V_y ratio between 0.5 to 2.0, since it has been held that discovering an optimum value of result effective variable involves only routine skill in the art.” To the contrary, Applicants submit that having the claimed V_x/V_y ratio is not obvious.

As noted above, Schneider discloses an apparatus to sculpt a decorative pattern in the pile of a carpet. Schneider does disclose that the cutter 18 can move in X, Y, and Z directions. The reference, however, does not provide any sort of suggestion or motivation for the claimed V_x/V_y ratio. In addition, the claimed V_x/V_y ratio is one of the inventive aspects of the Applicants’ invention that supports the patentability of the invention. *See* M.P.E.P. § 2144.05(II)(A).

Claim 3 is also believed to be patentable because Schneider is a nonanalogous art and cannot be properly used as a basis for a §103 rejection. M.P.E.P. 2141.01(a). In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. *Id.*

As discussed above, Schneider relates to the sculpting decorative patterns into the pile of a carpet. “The pattern that is cut in the carpet is done by a power driven clipping head, preferably of the type which has a reciprocating blade that has cutting surfaces which interact with cutting surfaces of stationary blades and which are capable of cutting a swath of a few inches width during operation.” Col. 2, lines 34-39. In the sculpting process, *carpet fibers are cut out* of the carpet pile.

In contrast, the Applicants’ invention relates to a cutting machine for cutting napped cloth, as opposed to sculpting the carpet pile. An aspect of the Applicants’ invention is to have a cutting apparatus which can *prevent* fraying and *dropout of fibers* during a cutting operation. This is entirely different from Schneider which *cuts out* carpet fibers. Thus, Schneider is not proper prior art.

Rejection of Claims 7-9 under § 103(a) over Schneider and Official Notice

Claims 3 and 7-9, which ultimately depend from claim 1, are believed to be patentable for at least the reasons submitted for claim 1 with respect to Schneider. In addition, Schneider is an improper reference because it is nonanalogous art.

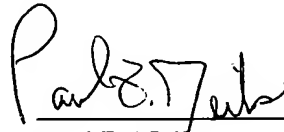
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. §1.111
U.S. Appln No. 10/699,798

Atty Dkt No. Q78285

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Paul F. Neils
Registration No. 33,102

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

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23373

CUSTOMER NUMBER

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